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Action Item

Educational Policy and Programs Committee

Adding Value, Ensuring Quality, Investing in Learning: *The California Postsecondary Education Commission's Role in Academic Program Planning, Approval, and Review*

In this item, staff reviews its responsibilities regarding academic planning, approval, and review, including the analysis of all proposals for new academic and occupational programs submitted by the University of California, the California State University, and the California Community Colleges.

As revised, this report describes Commission and segmental roles, delineates the criteria used in the program review process, and provides selected examples and a matrix of community college programs reviewed over the last year, as well as the five-year academic plans of the University of California and the California State University. The item concludes by identifying issues requiring attention and setting forth recommendations to strengthen the Commission's work in the area.
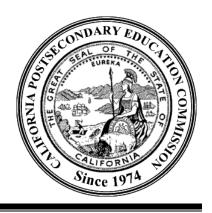
Recommended Action: Committee approval and Commission adoption of the report for appropriate action.

Presenter: Joan S. Sallee.

Adding Value, Ensuring Quality, Investing in Learning

The California Postsecondary Education Commission's Role in Academic Program Planning, Approval, and Review

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Executive Summary

Introduction

The review of academic plans and programs has been one of the central functions of the Commission since its establishment in 1974 as the State's planning and coordinating agency for postsecondary education. This report reviews that historic Commission role; describes the interests and processes used by the campuses and segmental offices; explains the Commission's broader perspective and the criteria it applies; and provides selected examples of Commission staff work. Illustrating the value to the State of the Commission's work in academic program planning, approval, and review, the item concludes with recommendations to improve those efforts in the future.

Implementation

Commission staff reviews the academic plans for new campuses and centers in the University of California, California State University, and California Community Colleges. Staff has recently reviewed and made recommendations on the academic plans for the University of California, Merced; California State University, Channel Islands, West Hills College at Lemoore; and the Off-Campus Higher Education Center at Otay Mesa.

Most Commission staff work, however, falls in the area of reviewing proposals for new schools and colleges, as well as certificate and degree programs at both the undergraduate and graduate levels, from the University of California, the California State University, and the California Community Colleges. Staff uses criteria that represent the State's interests, namely, student demand, societal needs, appropriateness to institutional and segmental mission, number of existing and proposed programs in the field, total costs, maintenance and improvement of quality, and advancement of knowledge.

Although the Commission does not itself critique academic and occupational programs already in operation, it examines the results of the program reviews that are done regularly by the University of California and the California State University.

Collectively, these activities of academic program planning, approval and review constitute a continuum that begins with academic master planning for new campuses and centers; moves into the development and eventual submission of proposals for new programs by the segments on an ongoing basis; and rotates into the review of established programs to determine if they are still vital or require discontinuation. This process is essential for the continued vibrancy and health of all colleges and universities and for the programs provided to their students.

Consequences	The Commission, unlike its counterparts in many other states, occupies largely an advisory, rather than regulatory, role in its oversight of academic and occupational programs. It is only in the case of proposals for joint doctoral degree programs between the California State University and independent institutions that the Education Code gives the Commission the authority to deny or approve such programs. In all other cases, its mandate is simply to review and recommend. Nonetheless, even in this capacity, the Commission's recommendations for improvement are taken seriously by the segments. As a result of this collaboration, the rigor and quality of the academic plans for new campuses and centers and proposals for new schools and programs are often enhanced, and students are better served

When the Commission declines to concur with the establishment of a school or program, it saves State resources, although the cost of a school or program is rarely the sole criterion used. In one of the examples noted in this report, denial of two proposals on the basis of insufficient student demand and societal need saved tens of millions of dollars in State or other funding sources.

The Commission represents the public interest, and through its role in academic planning, approval, and review, the Commission ensures that the systems of higher education remain responsive to the State's overall educational and economic needs, the needs of students, and the maintenance of high quality in all programs. When an academic program is proposed, it is done so initially by the faculty that will be teaching it and are thus committed to it with a natural self-interest. The systems also look to their own needs; that is their job. The Commission, on the other hand, takes a broader perspective and looks at other indices that have to do with the State's interests and the use of taxpayer funds. The Commission's work is truly an investment in learning in the highest sense of the phrase.

Recommendations	In the interest of advancing the quality of its own work in the area of program planning, approval, and review, the Commission makes the following recommendations:

1. Staff shall request that the University of California submit full proposals and that all three segments provide more detailed budget information in all proposals submitted for review.

2. Staff shall review and revise the Commission's *Guidelines on the Commission's Role in the Review of Degree and Certificate Programs*.

3. Staff shall reconvene the Intersegmental Program Review Council to discuss such revisions and other issues.

4. Staff shall consider the most effective use of resources in fulfilling the Commission's statutory responsibilities regarding the review of academic and occupational programs, including the use of technology.

5. Staff shall review the five-year plans of the University of California and the California State University to assess the alignment between proposed new school and programs and the human capital needs of the State.

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Adding Value, Ensuring Quality, Investing in Learning:

The California Postsecondary Education Commission's Role in Academic Program Planning, Approval, and Review

I N ESTABLISHING the California Postsecondary Education Commission in 1974 as the State's planning and coordinating agency for postsecondary education, the Legislature and the governor recognized the review of academic programs as one of its central functions and charged the Commission with a number of specific responsibilities in this regard. This item reviews the Commission's historic role and responsibilities in academic program planning, approval, and review; provides selected examples of its work; identifies issues for future consideration; and sets forth recommendations to improve the Commission's efforts in the area.

Context

At the heart of any university is what it teaches. Its academic programs are the fundamental reason that students come to an institution, and the reason that faculty, classrooms, laboratories, and the entire university infrastructure exist. Indeed, the curriculum is a major component in defining both the institution and the student. Academic programs structure intellectual coherence for students, providing knowledge useful to them and to the larger society to which they will contribute. Academic programs prepare students for work or further study; broaden their intellectual and social horizons by challenging them with ideas and points of view; and in so doing, develop an informed, questioning citizenry without which democracy cannot survive. Academic programs are, indeed, the heart of the postsecondary enterprise.

California's public and independent colleges and universities offer a wide variety of academic programs -- from Architecture at the California Polytechnic State University at San Luis Obispo; Asian American Studies at UCLA; and Advanced Transportation Technology in Alternative Fuels at Long Beach City College; to Cognitive Science at the University of California, Santa Cruz; Creative Writing at San Francisco State; and Culinary Arts at Contra Costa College; to Urban Planning at San Jose State University; Veterinary Medicine at UC Davis; and Woodworking at the College of the Redwoods.

Some academic programs like Rhetoric have been part of higher education's history since the Middle Ages, while others, such as Biostatistics, Web Design, or Medical Informatics, were not even imagined a decade ago. This broad range of programs illustrates that education not only pro-

tects and serves as the repository of the world's intellectual heritage but also responds to changing societal needs and, in the case of research universities, creates new knowledge. To that end, academic programs in California's higher education institutions continue to evolve, and the California Postsecondary Education Commission has an important role to play in the process.

The Commission reviews the academic plans for new campuses and centers in the University of California, California State University, and California Community Colleges. In addition, campuses in all three public systems that propose to implement new academic programs first submit those plans to their respective systemwide offices that, in turn, transmit these proposals to the California Postsecondary Education Commission. Although the Commission does not itself critique existing programs, it examines the results of the program reviews that are done regularly by the University of California and the California State University. These activities of academic program planning, approval, and review can be visualized as a continuum that begins with academic master planning for new campuses; moves into the development and eventual submission of proposals for new programs; and continues with the ongoing review of established programs to determine the resources needed to maintain their vitality or the process for their discontinuation. These elements are necessary and integral parts of a cyclical process undertaken with varying degrees of success by all colleges and universities.

While programs in the State's public institutions fall within the oversight of the Commission, the State's independent institutions operate autonomously. Each independent college or university makes its own decisions about the kind and content of its academic programs and on-going programmatic evaluation.

The Commission's legislative mandate

Among the Postsecondary Education Commission's mandates in the California Education Code, those related both directly and indirectly to program planning, approval, and review, may be found in Sections 66903 and 66904, unless otherwise noted below.

Academic planning process for new campuses and centers

The Education Code states that the Commission shall advise the Legislature and the governor regarding the need for, and location of, new institutions and campuses of public higher education. Sites for these new institutions or branches cannot be authorized or acquired and will not receive State funds, unless recommended by the Commission. Education Code 89002 applies specifically to the California State University and specifies that construction of authorized campuses can begin only upon resolution of the State University Trustees and the approval of the Commission.

These quasi-regulatory responsibilities for the Commission have been formalized in a set of guidelines (*Guidelines for Review of Proposed University Campuses, Community Colleges, and Educational and Joint-Use Centers*, April 2002). Under these guidelines governing the Commis-

sion's responsibilities in approving new campuses and centers, the Commission is directed to consider the academic plan for each campus or center as part of the review.

Most recently, Commission staff has reviewed and made recommendations about the academic plans for the new campuses at the University of California, Merced; California State University, Channel Islands; and West Hills College at Lemoore. Additionally, staff has reviewed the academic plan for the off-campus higher education center at Otay Mesa proposed by the Southwestern Community College District in collaboration with San Diego State University. Commission staff has also been involved in discussions with representatives from Canada Community College and San Francisco State University about a joint-use center on the Canada campus.

Review process for new academic programs

The Education Code directs the Commission to review proposals for new programs from the public segments, taking into consideration the priorities that guide them and the degree of coordination with nearby public, independent, and private postsecondary educational institutions, and to make recommendations regarding those proposals to the Legislature and the governor.

The University of California, the California State University, and the California Community Colleges are required to forward all proposals for new postsecondary educational programs to the Commission. In turn, the Commission is to review the proposals within a reasonable length of time, not to exceed 60 days, following submission of the materials. Under this mandate, Commission staff, on behalf of the executive director and the Commission, reviews and either concurs or does not with the system's recommendation for approval on proposals for new schools and colleges, graduate and undergraduate degree and certificate programs, and new research institutes or centers. The Legislature and the governor are advised about these decisions through Commission reports and the State budget process.

The Commission's recommendations for improvement are taken seriously by the segments and the rigor of academic and occupational programs is often enhanced as a result. Furthermore, when the Commission declines to concur with the establishment of a program, however infrequent that may be, State resources are preserved.

Approval process for joint doctoral programs

While the Commission's authority is advisory on most matters, Section 66010.4 of the Education Code gives the Commission specific approval authority, as opposed to merely making recommendations, for all doctoral programs proposed by the California State University in conjunction with one or more independent institutions.

During the review of such a proposal, Commission staff organizes a Joint Graduate Review Board of faculty from campuses of the State University and independent institutions, except those institutions actually proposing the program, to discuss the proposal and advise Commission staff. The need for such review boards in the review of proposals for joint doctoral degrees between the State University and the University of California is not necessary, because the internal review processes within the university systems are sufficiently rigorous that Commission staff can utilize their results in the course of its own review.

Review process for existing academic programs

The Education Code also calls upon the Commission, in consultation with the public segments, to establish a schedule for segmental review of selected educational programs; evaluate the program approval, review, and disestablishment processes of the segments; and report its findings and recommendations to the Legislature and the governor. Commission staff depends upon the well-established and regularized processes in the University of California and the California State University for the review of established programs in the four-year systems. The procedures are less well articulated in the community colleges, a consequence of the less-centralized organizational structure of that segment of higher education.

Other tasks

The Commission is also to collect or conduct studies of projected manpower supply and demand on a periodic basis to improve the information base upon which students make choices about professions and to consider the relationship between academic education and vocational education and job training programs.

Available resources have limited Commission staff to intermittent preparation of supply-and-demand studies in such diverse occupational areas as education, nursing, and library/information science in response to proposed legislation or campus initiatives. A recent example is a study currently being undertaken in conjunction with the California Policy Research Center, California Program for Access to Care, and the University of California, San Francisco. This study will address various aspects of nursing education programs in the California Community Colleges and the public policy issues surrounding the State's nursing shortage (SB664).

These mandated activities, either directly or indirectly related to academic programs, are central to the Commission's role as the planning and coordinating agency for California postsecondary education. Through its role in academic planning, approval, and review, the Commission ensures that the systems of higher education remain responsive to the State's educational and economic needs, the needs of students, and the maintenance of high quality in all programs.

Commission and segmental roles

It is important to note that, unlike its counterparts in many other states, the Commission operates in an advisory capacity and hence has a comparably modest role in the oversight of academic programs. It has no au-

thority, for example, to conduct its own reviews of existing programs on individual campuses nor to discontinue programs as do many state governing agencies. The Commission staff focuses its attention primarily on the proposals for new graduate programs submitted by the University of California, both undergraduate and graduate programs in the California State University, and associate degree and certificate programs in the California Community Colleges.

An academic program in either of the public university systems is developed in essentially the same way. Frequently prompted by new developments in an intellectual field or by changing student or societal needs, faculty begin the process by proposing a new program to their department and to the appropriate deans. Once a formal proposal is developed, it must make its way through several campus checkpoints.

Proposals for undergraduate programs in the University of California are reviewed and decided upon by each campus. Proposals for graduate programs are submitted to the Office of the President in Oakland for review and a recommendation for approval before they are transmitted to the Commission. The California State University Chancellor's Office, on the other hand, reviews the proposals for both its undergraduate and graduate programs and sends all proposals to the Commission for review and action. Both systems carry out a careful review of each proposal before its transmittal to the Commission. As part of its review, the State University engages external reviewers in similar or related disciplines from throughout the country, while the University of California relies upon the systemwide Academic Senate to provide additional expertise.

The Academic Senate committee most involved in academic program concerns at the University of California is the Coordinating Committee on Graduate Affairs (CCGA). With a membership of one faculty representative from each campus plus a chair and vice chair and two graduate student representatives, CCGA reviews and makes recommendations on all proposals for new graduate programs and organized research units (ORAs, ORUs, and MRAs) in the University of California system.

These extensive and sometimes time-consuming reviews include consultation with external referees, site visits, and consideration of systemwide issues. The review process may be attenuated if the campus is asked to reconsider certain elements and/or rewrite the proposal. The Coordinating Committee on Graduate Affairs and the Commission review proposals for new academic programs simultaneously. Given that each body focuses on different indices of quality, Commission concurrence is always made contingent upon approval by CCGA.

In 1993, the University of California created the Academic Planning Council (APC), a systemwide body to oversee long-range planning for the University, to replace the Academic Planning and Program Review Board. According to the University's website, "the APC's greatest value

is raising questions, framing issues, and analyzing alternatives concerning the University's academic directions." The APC meets six to eight times a year and is chaired by the Provost and Senior Vice President for Academic Affairs in the Office of the President.

Examples of topics discussed by the Academic Planning Council in recent years include enrollment planning and efforts to accommodate increases in undergraduate enrollments; increasing graduate student enrollments; instructional technology; health sciences planning; and faculty recruitment. In October 2001, the APC discussed the advisability of systemwide planning for new professional schools versus a campus-generated approach; the Commission recently raised this issue with the University and developments are being watched with interest.

The University of California and State University each provide a larger context for the review of new program proposals by preparing an annual list of new programs projected over the next five years. Although these lists, including projected dates of implementation, may change, they are a helpful guide to an institution's intent and system direction. The Commission is thus made aware of new programs on the horizon and how one campus may be similar to another. The current five-year plans from the University of California and the California State University can be found in Attachments A and B.

Processes in the
California
Community
Colleges

Since its inception, the Commission reviewed all new academic and occupational programs proposed by the State's community colleges. In December of 1995, however, budget and fiscal constraints forced the Commission to suspend its review. Recognizing its statutory requirement and the public policy importance of reviewing all new programs proposed by public colleges and universities in California, the Commission during the 1999-2000 budget year requested additional resources to reinitiate its role in the reviewing proposed community college academic and occupational programs. The Department of Finance approved the Commission's request, and in January 2001 the Commission hired a senior policy analyst for the purpose of reviewing new community college programs.

Commission staff reinstated its process of review by holding several meetings with the staff of the California Community Colleges Chancellor's Office and discussing the role that Commission staff would play in the review process. Over a period of months, Commission staff refined the review process in consultation with Chancellor's Office staff. The timing of these consultations was fortuitous, in that the Chancellor's Office was involved in redesigning and reissuing its *Program and Course Approval Handbook*. The Commission's staff was afforded the opportunity to comment on the new *Handbook*, and the Commission's guidelines for academic and occupational program review are incorporated in that Chancellor's Office publication. As of May 2002, Commission staff has reviewed over 110 new academic and occupational program proposals since it reinstated its review process in January 2001 (Attachment C).

The Commission's guidelines

Once a proposal arrives at the Commission for review, staff applies seven criteria that have been developed in consultation with the systems and in existence for many years. These criteria, which represent the State's interests, include the following:

- ◆ Student demand

- ◆ Societal needs

- ◆ Appropriateness to institutional and segmental mission

- ◆ Number of existing and proposed programs in the field

- ◆ Total costs of the program

- ◆ Maintenance and improvement of quality

- ◆ Advancement of knowledge

The Commission's reviews take into consideration enrollments, capacity of other programs, geographic distribution, adequacy of resources, job opportunities, articulation with other segments, data from professional organizations, and other indices, as appropriate. Although staff depends upon the systemwide office and faculty review on matters related to appropriateness of the curriculum and number and qualifications of the faculty, it may also examine these elements as well. Each proposal involves several readings, consultations with the systems, research on the discipline, contact with professional organizations, a catalog search, analysis of enrollments and degrees conferred in existing programs in the discipline, before a letter concurring, not concurring, or requesting additional information is sent to the appropriate system office.

Specifically, *student demand* for a program is determined by a variety of measures: current enrollments in the same program that exists on other California campuses; current enrollments in related programs on the proposing campus; enrollments projected for the proposed program; surveys of student interest; and five-year enrollment trends in enrollments and degrees conferred in existing programs in the discipline across systems, including independent institutions.

The criteria for *societal need* vary with the level of program. Staff requires data on labor market demand for new occupational programs in the community colleges, including information from the Employment Development Department, Workforce Investment Boards, and employer surveys. This information needs to reflect the demand for persons being trained for specific jobs, not for the industry as a whole, and must include anticipated salaries and wages expected for the specific jobs for which students are training. With programs leading to an associate degree or certificate, the local employment market tends to be more important than in the case of graduate programs in the University of California or the

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California State University where state and national manpower prospects assume more significance.

For what are considered "core" programs, like English, history, and other liberal arts disciplines, specific employment opportunities are not the primary consideration in the Commission's review. These are disciplines that contribute to a well-furnished mind for the individual and a civil and democratic society for the citizenry as a whole.

In recent months, many community colleges have initiated new transfer programs that encourage receipt of an Associate Degree prior to transfer. A degree completion demonstrates a viable product for both the student and the college, and is one measurement in the California Community Colleges' Partnership for Excellence (PFE) program.

The Commission has agreed that new academic transfer programs that are a repackaging of existing courses into a new program name do not require Commission concurrence, so long as no new resources are necessary to support the program. However, the Commission expects that such new program proposals include a complete discussion of programmatic articulation agreements with specific four-year colleges, and the extent to which the community college course offerings match four-year institution lower division requirements. Commission staff receives copies and conducts a cursory review of these new program titles.

Appropriateness to institutional and segmental mission refers to the delineation of function as set forth in the California Master Plan and the system's direction as approved by the segmental governing board. In *evaluating the number of existing and proposed programs in the field*, Commission staff looks across the segments to determine regional distribution and responsible use of public resources. Numbers alone do not indicate unnecessary duplication. *Total costs* may be the most difficult criterion to assess in most proposals, primarily because of lack of information about the actual costs of needed faculty, facilities, equipment, library acquisitions, etc. and the source of funding for such needs.

The Commission is interested in indications that high standards have been established for the implementation, sustained operation, and continual evaluation of the proposed program. Thus, *maintenance and improvement of quality* is an essential aspect of the Commission's review process. The *advancement of knowledge* is also an important criterion for programs in the four-year segments. The University of California and the California State University have the opportunity to advance cutting-edge ideas and techniques; these programs are occasionally the first in the State and sometimes the country.

While not explicitly included in the criteria for review, and therefore not a requirement for concurrence, Commission staff does request information regarding the extent that occupational program courses in the community colleges might articulate with four-year university courses. The Commis-

sion also requests that colleges discuss whether an entire program is transferable, or whether only selected courses are articulated with a specific four-year program. The college is expected to identify and discuss specific programmatic articulation efforts with identified University of California and California State University campuses, including letters of support from those four-year institutions. The college is also expected to provide information regarding differing course requirements for transfer to the various four-year academic programs.

Application of Commission guidelines	These criteria were established over 20 years ago, in consultation with the segments, and are described in a document called *The Commission's Role in the Review of Degree and Certificate Programs*. To exemplify how these *Guidelines* work in practice, the following section will describe a representative selection of programs reviewed over the last year.
	Although a vastly truncated version of the numbers of new program proposals received, the process of review, and the ultimate decisions made, this summary is designed to present illustrative examples of the programs reviewed and the variety of issues they embody. Through its review processes, the Commission assures that each new academic program proposed meets student demand, societal need, and high standards of quality, thus making efficient and effective use of the State's resources and contributing both to the individual and the common good.
School of Pharmacy, University of California, San Diego	The Commission is mandated to review proposals for new schools and colleges. It is the establishment of these administrative structures that requires the most significant outlay of resources for a dean, founding faculty, and capital investments, often for both facilities and equipment. When the proposal for a School of Pharmacy was initially submitted to the Commission, staff concurred conditionally with it, contingent upon receiving additional information about costs and adequacy of resources to both establish and maintain it.
	Despite its concerns about fiscal impact, staff viewed the proposal in a positive light from the outset, largely due to supply and demand issues within the State and across the country. In December 1999, Congress funded a national study in response to what was referred to as "a national crisis" in attracting and producing pharmacists. States with far fewer citizens than California had at least one state-supported School of Pharmacy, often more. California, however, with its immense geographic reach and size of population, possessed only one such school -- at the University of California, San Francisco.
	Making supply and demand within California even more acute was the fact that only 13% of those applying to that one pharmacy school at UCSF were admitted to the class of 2000; 784 students were turned away. This large number of candidates denied admission occurred at the same time as California's population was increasing both in numbers and in

age, and a large aging society needs more pharmacists. The picture was equally dire in other states. According to the monthly survey that directly inventories the hiring of pharmacists nationally, the numbers show a moderate to high demand that cannot be filled by the candidates available.

Clearly, the State needed another School of Pharmacy, and Commission staff agreed with the University of California that San Diego was the appropriate site for a number of reasons. First, a program located on a campus in the southern part of the State would complement the one in the north. Second, the region has the third largest biotechnology industry in the country, and this growing industry has a regulatory need for pharmacists related to the testing and manufacture of drugs. Coupled with the fact that two-thirds of all pharmacists are employed in community drug stores, UCSD pharmacy graduates would, therefore, have a number of employment opportunities available to them.

Furthermore, the campus already had an undergraduate pharmaceutical chemistry program; a pharmacology track in the Biomedical Sciences Ph.D. program; a pharmacy clerkship in cooperation with UCSF; and a pharmacy residency program at the UCSD hospitals. In addition, for over 20 years, UCSD had served as a clerkship-training site for 18 UCSF Pharm.D. Students in their fourth year of training. And the San Diego Veterans Administration Health System, located on the UCSD campus, serves as a training site for pharmacy students from the University of the Pacific in Stockton.

With the receipt of additional information about resources from the University of California Office of the President, the Commission formally concurred in May 2001 with this proposal for a new School of Pharmacy at UCSD and supported the University in its quest for funding during budget hearings.

Schools of Law, University of California, Riverside and Irvine

In contrast, in June 2001, the Commission found no compelling need to establish a School of Law at either the University of California, Riverside or the University of California, Irvine in response to the two proposals forwarded simultaneously by the University of California Office of the President. Commission staff concluded that neither sufficient student demand nor societal need existed to warrant the substantial cost of establishing and maintaining even one additional publicly supported law school in the State.

Commission staff agreed with the evidence in the study, *The Labor Market for Attorneys in the State of California,* prepared for the University of California Office of the President by the Rand Corporation. It shows that the number of Bar-certified attorneys will likely keep pace with or exceed the expected growth in demand between 2001 and 2015 for the state as a whole and for each region as well.

Coupled with the proposed capital costs of $61.7 million, operating costs of $15.7 million, and cumulative start-up costs of $24.1 million for the Riverside School of Law alone, the supply and demand issue led the Commission to advise the UC Office of the President that concurrence would not be forthcoming on either school. The Commission further urged the University to examine its priorities, given that it had committed itself to a tenth campus and to a major off-campus center and had implemented extensive strategies to meet increasing student demand at the undergraduate level, as well as expanding its graduate programs.

Although the Commission's decision was based primarily on supply and demand and related issues, its end-result was to save the State millions of dollars at a time when State resources were leveling off, immediately before their now-precipitous decline. An additional substantial fiscal burden on the State was thus avoided.

Master of Advanced Studies (M.A.S.) in Clinical Research in the Department of Epidemiology and Biostatistics in the School of Medicine at the University of California, San Francisco

This new degree program -- the Master of Advanced Study (M.A.S.) -- was first announced by University of California President Atkinson in 1998 as part of an initiative to serve specific groups of working professionals with well-defined needs for advanced degree work. Some of these degrees are meant for career advancement, while others may allow individuals to pursue new career directions or advanced liberal studies. Private universities like Chicago, Harvard, and Stanford have found such degrees in the liberal arts of great interest to working professionals.

The program is to be offered on a schedule and/or in a location that would increase access for working adults, i.e., on a part-time rather than full-time basis. The programs are expected to be primarily self-supporting, although State-funded options within a campus's graduate enrollment ceilings may also occur. Some programs might be offered in collaboration with University Extension. The Office of the President invited campuses to develop pilot programs, and eight of the nine campuses received funding for programs such as Dietetics, Digital Media, and Criminology, Law and Society. The Commission concurred with this most recent M.A.S. degree program in Clinical Research in April 2002, contingent upon CCGA approval.

Joint Doctorate in Computational Science between San Diego State University and Claremont Graduate University

In March 2002, the Commission approved this joint Ph.D. program between a State University campus and an independent institution. Of all the California State University campuses, San Diego State has the greatest number of joint doctorates, due to faculty, administrative, and institutional commitment to the concept and to successful implementation of a wide range of joint doctoral degree programs.

After its own review, Commission staff constituted a Joint Graduate Review Board to review the proposal for this program. The panel included distinguished faculty from Stanford University, the California Institute of Technology, California State University at Long Beach, and Chico State University, as well as staff from the Association of Independent Califor-

nia Colleges and Universities and the State University Chancellor's Office. The review board unanimously endorsed the proposal, making a few suggestions for improvement.

Following the approval process, President Steadman Upham of Claremont thanked the Commission for its recommendations and agreed, "to incorporate all of these useful ideas into both the administration and curriculum of the program as it is implemented." This doctorate will be the first doctoral program in Computational Science in the State of California.

Bachelor of Science degree program in Graphic Communications at California State University, Los Angeles

Staff has seen an increasing number of proposals, particularly in engineering and technology, that seek to establish independent, freestanding degree programs from options that have operated under other programs. For example, a degree in Electrical Engineering better serves students and employers than a general Engineering degree with an option in Electrical Engineering.

California State University, Los Angeles decided to institute this separate degree program in Graphic Communications, after 45 years of offering an option in Printing Management under the B.S. degree in Industrial Technology. Its reasons had to do with accreditation, student recruitment, and rapid-fire changes in the industry.

The National Association of Industrial Technology (NAIT) will accredit only full degree programs, not options, which have stood in the way of the department seeking accreditation for its Industrial Technology degree. Furthermore, the Printing Management program was not very visible under the old configuration, and student recruitment and program growth had suffered as a result. Employers in digital print and media fields did not readily associate a degree in Industrial Technology as meeting their needs. In addition, with traditional print media rapidly converging with digital media, Printing Management no longer accurately described either the educational preparation offered or the job opportunities available.

Commission staff believes that students and employers alike will be better served by the change in nomenclature and structure. The program development team included industry leaders as well as faculty, and the Engineering and Technology Building, which houses the Graphic Communications Lab, recently completed a $32 million renovation. The program was developed in collaboration with community colleges in the area that offer two-year graphic communications/printing programs. The campus also has an articulation agreement with Manual Arts High School where at-risk students are identified for a Graphic Arts Academy and bused to the California State University, Los Angeles campus for graphic communications coursework that is transferable. Staff concurred with this Graphic Communications program, the only four-year program in the discipline in southern California.

Certificate and associate degree in Network Design and Administration at DeAnza College	The Commission has received numerous Computer and Information Science occupational program proposals since January 2001. A proposal, noteworthy because of its exceptional content, was a Network Design and Administration program at DeAnza College.

The college provided information that demonstrated a strong labor market demand for data communication technicians, information system operators, network administrators, network technicians, PC support specialists, technical support specialists, and other user support specialists within the geographic vicinity of the campus. The program was not only warranted, but vital to the economic success of the region.

The college also provided an extensive job market analysis, along with an extensive discussion of student demand and interest in the program. In addition, the college presented evidence to show that it had develop extensive working relationships with a wide variety of employers throughout the Silicon Valley, and that its program was designed to effectively address the specific training needs of employers throughout the region. The Commission concurred with the proposal. |
| *Associate degree (transfer) in Mathematics at American River College* | The Commission has received several proposals since January 2001 for new academic transfer programs. As noted earlier, new program proposals that are comprised entirely of existing courses and require no new resources, do not require Commission review. However, Commission staff does review new programs in which courses are added or where the program is restructured.

One example was an Associate Degree (Transfer) program proposed by American River College. In light of the need for more mathematics majors, especially those who might pursue a teaching career, the Commission looked favorably on this proposal. The college recognized a need for additional mathematicians who could receive a bachelor's degree or higher. To that end, this community college developed extensive articulation agreements with the California State University, Sacramento and the University of California, Davis to provide students with seamless transfer to their respective mathematics programs. In light of the model quality of the articulation agreements with the two aforementioned universities, Commission staff encouraged the American River College to develop additional agreements with other University of California and California State University campuses that offer baccalaureate level and higher mathematics programs. The Commission concurred with this proposal. |
| **Concluding observations** | Not all proposals for new programs are concurred with so wholeheartedly. For example, a university proposal was recently returned, due to its generating too many questions and concerns for concurrence. Both the proposal and its conceptual framework were extraordinarily confusing, and staff feared that students would not be able to determine the appropriate pathway to take. The proposal required much more clarity and fo- |

cus. Furthermore, it did not provide any data on student demand or on societal need, other than general statements that careers existed. The campus was cautioned that Commission concurrence requires much more than a preponderance of existing courses, relatively few students, and sufficient resources; all the criteria must be met.

In the case of community college review, Commission staff has concurred with roughly two thirds of all proposals submitted. Where proposals did not adequately address the Commission's criteria, staff offered a "conditional concurrence," and asked that the college provide additional information. All but one college provided the additional information necessary to receive full concurrence. The Chancellor's Office has supported the Commission's staff recommendation in all instances, and a specific reference is made in the Board of Governors March 11-12, 2002 agenda that the Chancellor's Office would not act contrary to a Commission determination about its programs except under extraordinary circumstances.

The Commission represents the public interest in discharging its program approval responsibilities for the State. When an academic program is proposed, it is done so initially by the faculty that will be teaching it and are thus committed to it with natural self-interest. A particular discipline is the faculty's area of expertise and one that they wish to share with their students. The Commission, on the other hand, looks at other indices that are equally important – those that have to do with the State's interests and the use of taxpayer funds.

The activities undertaken by the Commission with respect to academic program planning, approval, and review are important to ensure that the academic choices provided to students not only further the life of the mind, the teaching and research interests of the faculty, and institutional vitality and reputation but also meet the State's economic and workforce needs. It is this amalgam of necessary tensions to which the Commission must attend.

Issues for further consideration   As practitioners reflect, a number of issues can always be identified whose resolution would improve accomplishing the task, given further discussion and concentrated effort. This next section will discuss such prospects, ranging from the procedural through the operational to the political and ending with specific recommendations.

Staff has proposed that it receive full proposals from the University of California, accompanied by a cover letter highlighting the most important parts of the proposal and recommending approval from the Office of the President. This process would mirror that used by the California State University Chancellor's Office, which has proved to be satisfactory for the State University and the Commission.

Currently, the University of California sends a cover letter summarizing the full proposal and a two-to-three-page questionnaire as an attachment.

These materials are often insufficient, and receiving the full proposal might obviate the Commission's need to ask for further information, which then delays the process. The current format also lacks sufficient budget information about the actual costs for the number of new faculty projected to be hired, facilities to be renovated or built, equipment and library materials to be purchased, and the proposed funding sources for these costs. Quantitative information about student demand and societal need, particularly survey results, should also be as recent as possible in all proposals.

The quality of new program proposals submitted by community college campuses has improved markedly in recent months. Chancellor's Office staff has held numerous training sessions throughout the state to advise occupational and academic deans about both the Chancellor's Office and Commission's guidelines for program approval. These sessions, along with Commission staff presentations, have assisted college staff in fully understanding the Commission's criteria. To that end, less then 10 % of proposals submitted to the Commission in recent months have required submission of additional information prior to the Commission giving its concurrence.

To further Commission staff efforts to be timely as possible in its responses to the systems, discussion needs to occur about how technology might be used to obtain information from the segments and for the Commission to share information, including responding to specific proposals, if appropriate.

Commission staff will reconvene the Intersegmental Program Review Council (IPRC) with its representatives from all three public segments and the Association of Independent California Colleges and Universities (AICCU). The most immediate task for the IPRC is to review the current Commission *Guidelines on the Commission's Role in the Review of Degree and Certificate programs*. Higher education in California has changed significantly since the *Guidelines* were originally written. There are new campuses and centers, new kinds of programs, and many new initiatives. These include the recent partnership agreement between the State public university systems on expanding joint doctorates in Education; the Master of Advanced Study degree programs; the University of California's Commission on Growth and Support of Graduate Education; work of the Joint Legislative Master Plan Committee; and many other issues such as the role of the Commission in program discontinuation and the relationship between program approval and review and WASC accreditation. The *Guidelines* require study and reconsideration.

If the Commission is to perform all the duties mandated to it by the Legislature, additional funding may be warranted. Because California has nearly 140 public colleges and universities, many of which submit proposals for new programs, limited resources for program review disadvantages California's overall higher education enterprise and ultimately the

students it serves. The entire spectrum of responsibilities in academic program planning, approval, and review must be achieved.

Finally, as colleges struggle to provide sufficient services to an ever-increasing number of students, they are turning to their legislators for assistance. This occasionally results in legislative actions that result in funding being given to particular programs or organizational configurations. Such arrangements supersede the regular processes of review, whether it is for academic programs or for academic facilities. While understandable, this situation leads to a weakening of established processes, and every success leads to more institutions stepping out of line to seek such assistance. There must be a commitment from all campuses that, however appealing, such efforts irreparably damage the collegial nature of higher education and may result in misuse of the State's resources.

Recommendations   Given these issues, the Commission recommends the following:

1. Staff shall request that the University of California submit full proposals and, in addition, require more detailed budget information in all proposals from the segments.

2. Staff shall review and revise the Commission's *Guidelines on the Commission's Role in the Review of Degree and Certificate Programs*.

3. Staff shall reconvene the Intersegmental Program Review Council to discuss such revisions and other issues.

4. Staff shall consider the most effective use of resources in fulfilling the Commission's statutory responsibilities regarding the review of academic and occupational programs, including the use of technology.

5. Staff shall review the five-year plans of the University of California and the California State University to assess the alignment between proposed new schools and programs and the human capital needs of the State.

Conclusion   The Commission has long been involved in academic program planning, approval, and review. With this work, it adds significant value to the State by improving the quality of academic programs; increasing inter-institutional collaboration; ensuring demand and need; reducing duplication; and conserving resources. Done formally or informally, by those both internal and external to the institution, the process helps maintain the delicate balance between innovation and tradition, faculty interests and society's needs, campus priorities and State accountability.

Appendix A

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2002 - 2007
BERKELEY

Proposed Programs	Degree	Status since February 2002
UNDERGRADUATE PROGRAMS		
Proposals added since February 2002 are shown in **BOLD**		
Forestry & Resource Management (merge two B.S. programs)	B.S.	1
Materials Science & Engineering and Bioengineering	B.S. double major	2
Molecular Toxicology	B.S.	1
Urban Studies	B.S.	2
GRADUATE PROGRAMS		
Proposals added since February 2002 are shown in **BOLD**		
Bioengineering	M.Engr.	1
Bioengineering -- Jt. with UCSF	Master & Doctor of Bioengineering	1
Communications and Networking	M. Engr.	1
Environmental Planning	M.S.	1
Environmental Science and Management	M.E.S.M.	1
Executive MBA	M.B.A.	2
Evolutionary Biology (w/ San Diego State University)	Ph.D.	2
Hi-Tech Production	M.S.	1
Internet-Based Design, Manufacturing, and Commerce	M. Engr.	1
M.B.A. & M.F.E. -- Concurrent	M.B.A./M.F.E.	2
M.B.A. & Dr. P.H. -- concurrent	M.B.A./Dr. P.H.	1
Master of Engineering in Management of Technology	M. Engr.	2
M.F.E. with UCLA	M.F.E.	1
Microbial Biology	M.S./Ph.D.	1
Microelectromechanical Systems	M. Engr.	1
Optometry (revise undergraduate O.D. program)	M.S./Ph.D.	2
Product Development and Entrepreneurship	M.S.	1
Urban Educational Leadership (w/ CSU)	Ed.D.	2
Women's Studies	Ph.D.	1

Status of proposal: 1--early planning stage; 2--undergoing campus review; 3--undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2002 - 2007
DAVIS

Proposed Programs	Degree	Status since February 2002

UNDERGRADUATE PROGRAMS
Proposals added since February 2002 are shown in **BOLD**

Applied Computational Engineering & Sciences	B.S.	1
Applied Mathematics	B.S.	2
Biomedical Engineering (double majors)	B.S.	1
Food Engineering & Biological Systems Engineering	B.S.	discontinuance planned
Greek	B.A.	discontinuance planned
Latin	B.A.	discontinuance planned
Mathematical & Scientific Computation	B.S.	2
Range & Wildlands	B.S.	discontinuance planned
Science and Technology Studies	B.A.	2

GRADUATE PROGRAMS
Proposals added since February 2002 are shown in **BOLD**

Animal Science and Biology	Ph.D.	1
Community Development	Ph.D.	1
Criminal Justice (w/ CSU Fresno, Sacramento, Stanislaus)	Jt. Ph.D.	2
Education	MA./Credential	2
Education -- emphasis on Teacher Education in Linguistically and Culturally Diverse Communities (w/ CSU Sacramento)	Ph.D.	1
Horticulture and Agronomy	Ph.D.	1
Infant Development	M.A.S.	1
Landscape Architecture	Ph.D.	1
Liberal Arts	M.A.S.	1
Linguistics	Ph.D.	1
Maternal and Child Nutrition	M.A.S.	2
Mathematics (Co-terminal B.S./Credential)	Credential	1
Plant Ecology (Joint Graduate Group w/ CSU Chico)	Ph.D.	1
Public Health	M.P.H.	3

SCHOOLS

Graduate School of the Environment		1
School of Education (reconstitution of Division of Education)		2

Status of proposal: 1--early planning stage; 2--undergoing campus review; 3--undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2002 - 2007
IRVINE

Proposed Programs	Degree	Status since February 2002

UNDERGRADUATE PROGRAMS
Proposals added since February 2002 are shown in **BOLD**

Proposed Programs	Degree	Status
Arts and Digital Media	B.F.A.	1
Asian Studies	B.A.	1
Biomedical Engineering	B.S. (see M.S./Ph.D. below)	2
Computer Science	B.S.	1
Computer Science and Engineering	B.S. (see M.S./Ph.D. below)	2
Environmental Health	B.A.	1
Environmental Health Science	B.S.	1
Global Culture	B.A.	2
Human Biology	B.S.	2
Humanities and Arts	B.A.	2
Information and Computer Science	B.A.	2
Information Systems Design	B.S.	2
Latin American Studies	B.A.	2
Latinos in a Global Society	B.A.	1
Literary Journalism	B.A.	2
Material Sciences Engineering	B.S.	2
Physical Sciences	B.A.	1
Public Policy	B.A.	1
Religious Studies	B.A. (see Ph.D. below)	1
Software Engineering	B.S. (see M.S./Ph.D. below)	2
Studio Art	B.F.A.	1

GRADUATE PROGRAMS
Proposals added since February 2002 are shown in **BOLD**

Proposed Programs	Degree	Status
Application of Psychological Science	M.A.	1
Arts and Digital Media	M.F.A.	2
Arts, Computation & Engineering (joint program)	M.A./Ph.D.	1
Asian American Studies	M.A.	1
Biomedical Engineering	M.S./Ph.D.	2
Comparative Literature (various emphases)	Ph.D.	1
Computer Science and Engineering	M.S./Ph.D.	2
Environmental Engineering	M.S./Ph.D.	2
History & Historical Writing Beyond the Academy	Ph.D.	1
Humanities & Information Technology	Ph.D.	1
Latin or Greek or Classics	M.A.	1
Linguistics	Ph.D.	2
Networked Systems	M.S./Ph.D.	3
Planning, Policy & Design	Ph.D.	1
Public Policy	M.A./Ph.D.	1
Religious Studies	Ph.D.	1
Second Language Acquisition	M.A.	1
Software Engineering	M.S./Ph.D.	2
Theory & Culture (interdisciplinary school-wide program)	Ph.D.	1

SCHOOLS

School of Design		1
School of Information and Computer Science		1

Status of proposal: 1--early planning stage; 2--undergoing campus review; 3--undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2002 - 2007
LOS ANGELES

Proposed Programs	Degree	Status since February 2002
UNDERGRADUATE PROGRAMS		
Proposals added since February 2002 are shown in **BOLD**		
Architectural and Urban Studies	B.A.	2
Armenian Studies	B.A.	1
Bioengineering	B.S.	2
Computational Social Science	B.A.	1
Information Studies	B.A.	1
Music	B.M.	2
Social Complexity	B.A.	1
GRADUATE PROGRAMS		
Proposals added since February 2002 are shown in **BOLD**		
Bioinformatics	Ph.D.	2
Chicana/Chicano Studies	M.A./Ph.D.	1
Communication Studies	Ph.D.	1
Conservation	M.A.	2
Design Media Studies	Ph.D.	1
Digital Media	M.A.S.	1
East Asian Linguistics	Ph.D.	1
European Cultural Studies	M.A.	1
Executive MBA w/ National University of Singapore	MBA	1
Geographical Information Systems	MSGIS	1
Health Economics	Ph.D.	1
Law	S.J.D.	3
Nursing	M.S.	1
Technology Management	M.Engr.	1

Status of proposal: 1--early planning stage; 2--undergoing campus review; 3--undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2002 - 2007
MERCED

Proposed Programs	Degree
Plans for 2004 - 05	
Biological Sciences	B.A./B.S.
Computer Science & Engineering	B.S.
Earth Systems Sciences	B.A./B.S.
Environmental Engineering	B.S.
Social and Behavioral Sciences	B.A./B.S.
World Cultures and History	B.A.
Graduate Groups	
Computer & Information Systems	M.S./Ph.D.
Environmental Systems	M.S./Ph.D.
Social & Behavioral Sciences	M.S./Ph.D.
Systems Biology	M.S./Ph.D.
World Cultures	M.A./Ph.D.
Plans for 2005 - 06	
Chemical Engineering	B.S.
Chemistry/Biochemistry	B.S.
Comparative Literature and Languages	B.A.
Human Biology	B.A.
Public Policy	B.S.
School	
School of Management	B.S., M.B.A., Ph.D.

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2002 - 2007
RIVERSIDE

Proposed Programs	Degree	Status since February 2002

UNDERGRADUATE PROGRAMS
Proposals added since February 2002 are shown in **BOLD**

Bioengineering	B.S.	1
Bioinformatics	B.S.	1
Business Administration	B.S.	1
Digital Arts (Art & Engineering)	B.S.	1
Environmental Science (w/ CSU Fresno)	B.S.	2
Film and Visual Culture	B.A.	1
Information Systems	B.S.	1
Japanese	B.A.	1
Music and Culture	B.A.	1
Political Science/International Affairs	B.A.	1
Public Policy Analysis	B.A.	1

GRADUATE PROGRAMS
Proposals added since February 2002 are shown in **BOLD**

Accountancy	M.S.A.	1
Art	M.F.A.	2
Bioengineering	M.S./Ph.D.	1
Bioinformatics	M.S./Ph.D.	1
Chemical Physics	Ph.D.	1
Digital Arts	Ph.D.	1
Dispute Resolution and Negotiation	M.A.S.	1
E-business, Entrepreneurship, and Financial Management	M.S.	1
Education/Teacher Credential Program	M.A.	1
Educational Leadership (w/ CSU)	Ph.D.	1
Engineering Management	M.A.S.	1
Engineering Management	M.S.	1
Environmental Chemistry	Ph.D.	1
Ethnic Studies	M.A.	1
Executive Master of Business Administration	Exec.M.B.A.	1
Family and Child Studies	M.A.S.	1
Linguistics	Ph.D.	1
Native American Studies	M.A./Ph.D.	1
Performance Studies	Ph.D.	1
Public Policy	M.A./Ph.D.	1
Religious Studies (possible intercampus program)	Ph.D.	1
Rhetoric and Composition	Ph.D.	1
Visual and Performance Studies	M.A./Ph.D.	1
Women's Studies	M.A.	1

Status of proposal: 1--early planning stage; 2--undergoing campus review; 3--undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2002 - 2007
SAN DIEGO

Proposed Programs	Degree	Status since February 2002

UNDERGRADUATE PROGRAMS
Proposals added since February 2002 are shown in **BOLD**

Biotechnology	B.S./M.S.	1
Environmental Engineering (Mechanical & Aerospace Engineering)	B.S.	2
Environmental Systems (Environmental Engineering)	B.S.	2
Literature/Cultural Studies	B.A.	1

COLLEGES
Seventh College		1

GRADUATE PROGRAMS
Proposals added since February 2002 are shown in **BOLD**

Audiology and Hearing Science (w/ San Diego State University)	Au.d., Ph.D.	1
Bioengineering	M.Eng.	2
Biostatistics Interdisciplinary Program	Ph.D.	1
Biotechnology	M.S. (B.A. above)	1
Business Administration	M.B.A.	2
Chemical Engineering	M.S./Ph.D.	2
Clinical Psychology (w/ San Diego State University)	M.A.	2
Clinical Research	M.A.S.	2
Communication (Science Studies)	Ph.D.	2
Computational Sciences	M.S./Ph.D.	2
Computer Science and Engineering	M.Eng.	1
Creative Writing and Literature	M.A.	1
Earth Sciences -- Geophysics (w/ San Diego State University)	Ph.D.	1
Education Studies	Ph.D.	1
Educational Leadership (w/ San Diego State and CSU San Marcos)	Ed.D.	1
Engineering - additional programs	M.Eng.	1
Geodesy and Spatial Referencing	M.S.	1
Health Law (w/ UC Extension and Case Western School of Law)	M.A.S.	2
Human Development	Ph.D.	1
Management/Business Education	M.B.A./Ph.D.	1
Materials Science and Engineering	M.S./Ph.D.	2
Pharmacy	Pharm. D.	1
Physics w/Specialization in Materials Physics	M.S.	2
Special Education (Joint w/ San Diego State)	Ed.D.	1
Structural Engineering and Mechanical & Aerospace Engineering	M.Eng.	1
Teaching and Learning	Ed.D.	2
Theatre with Specialization in Theatre Technology and Production	M.F.A.	1

ACADEMIC UNITS
Center for Law and Public Policy		1
Division of Biological Sciences		2
Institute for Regional and Urban Design (previously listed as School of Architecture)		1

Status of proposal: 1--early planning stage; 2--undergoing campus review; 3--undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2002 - 2007
SAN FRANCISCO

Proposed Programs	Degree	Status since February 2002
GRADUATE PROGRAMS		
(No proposals have been added since February 2002)		
Biological and Medical Informatics	M.S./Pharm.D.	1
Health Psychology and Behavior Neurosciences (w/ UCB)	Ph.D.	1
Post Baccalaureate Doctor of Pharmacy	Pharm.D.	1
SCHOOLS		
School of Advanced Health Studies		2

Status of proposal: 1--early planning stage; 2--undergoing campus review; 3--undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs
2002 - 2007
SANTA BARBARA

Proposed Programs	Degree	Status since February 2002
UNDERGRADUATE PROGRAMS		
Proposals added since February 2002 are shown in **BOLD**		
Biotechnology and Pharmacology	B.S. (integrated with M.S. below)	1
Environmental Science & Management	B.A. (see M.E.S.M. below)	1
French	B.A. (integrated with M.A. below)	1
Mathematics and Empirical Finance	B.S. (integrated with M.S./Ph.D. below)	1
Native American Studies	B.A.	1
GRADUATE PROGRAMS		
Proposals added since February 2002 are shown in **BOLD**		
Art	M.A.	1
Asian American Studies	M.A./Ph.D.	2
Bioengineering	M.S./Ph.D.	1
Biomolecular Science and Engineering	M.S./Ph.D.	2
Biotechnology and Pharmacology	M.S. (integrated w/ B.S.)	1
Black Studies	M.A./Ph.D.	2
Chicano Studies	M.A./Ph.D.	2
Dance		2
Earth Surface Sciences	M.S./Ph.D.	1
East Asian Languages and Cultural Studies	Ph.D.	2
Educational Leadership (w/ Cal Poly SLO)	Ed.D.	1
Environmental Science & Management	M.S.E.M. (see B.A. above)	1
Evolution & Paleobiology	MS/PhD	2
Film Studies	Ph.D.	2
French	M.A. (integrated w/ B.A.)	1
Geophysics	M.S./Ph.D	1
Information Disciplines	M.S./Ph.D.	1
International Affairs	M.I.A.	2
Mathematics and Empirical Finance	M.S. & Ph.D. (integrated w/ B.S.)	1
Media Arts & Technology Program	M.F.A. and Ph.D.	1
Microbiology	MS	1
New Technology Management	M.S.	1
Teaching & Learning (w/ CSU Northridge)	Ed.D.	1
Women's Studies	Ph.D.	2

Status of proposal: 1--early planning stage; 2--undergoing campus review; 3--undergoing CCGA/CPEC review

UNIVERSITY OF CALIFORNIA
Proposed Degree Programs .
2002 - 2007
SANTA CRUZ

Proposed Programs	Degree	Status since February 2002

UNDERGRADUATE PROGRAMS
Proposals added since February 2002 are shown in **BOLD**

Applied Physics	B.S.	1
East Asian Studies	B.A.	1
Health Sciences	B.A./B.S.	1

SCHOOLS & COLLEGES
College Ten B.A., B.S. 2

GRADUATE PROGRAMS
Proposals added since February 2002 are shown in **BOLD**

Applied Mathematics and Statistics	M.S./Ph.D.	1
Bioinformatics	M.S.	2
Biomolecular Engineering	M.S./Ph.D.	1
Digital Arts & New Media	M.F.A.	2
Ecology & Evolutionary Biology	Ph.D.	2
Education	Ph.D.	3
Education	M.A.S.	1
Education (w/ San Jose State University)	Ed.D.	1
Engineering Management	M.S./Ph.D.	1
Molecular, Cell & Developmental Biology	Ph.D.	2
Music Composition	D.M.A.	1
Public Humanities	M.A.	1
Social Documentation	M.A.	2
Software Engineering	M.S./Ph.D.	1
Web & Internet Engineering	M.A.S.	1

Status of proposal: 1--early planning stage; 2--undergoing campus review; 3--undergoing CCGA/CPEC review

Appendix B

THE ACADEMIC PLANS:
Summary of Projected Programs and Requests
2002-2003 through 2011-2012

BAKERSFIELD

2002	MA	Spanish
	MA	Teaching Mathematics
	MS	Computer Science
2003	MA	Economics*
	MA	Educational Administration
	MS	Biology
	EdD	Educational Leadership (with UC)
2006	BS	Computer Engineering
	BS	Electrical Engineering
	BS	Engineering

CHANNEL ISLANDS

2002	BA	English*
	BA	Fine Arts*
	BA	Liberal Studies
	BA	Mathematics
	BS	Biology
	BS	Business Administration
	BS	Computer Science
	BS	Environmental Sciences and Resource Management
2003	BA	History*
	BA	Psychology*
	MA	Education
2004	BA	Anthropology*
	BA	Chemistry*
	BA	Economics*
	BS	Chemistry*
	MBA	Business Administration
	MPA	Public Administration
	MS	Bioinformatics*

CHICO

2002	BA	Criminal Justice
	BA	Jewish Studies (in collaboration with San Diego State and San Francisco State)
	BA	Linguistics
	BS	Computer Graphics
	BS	Management Information Systems
	MS	Mathematics Education
2003	BA	Music Industry and Technology*

DOMINGUEZ HILLS

2002	BS	Telecommunications
	BS	Quality Assurance*
2003	MS	Computer Science
	MS	Health Care Management

FRESNO

2002	MS	Electrical Engineering
	MS	Engineering Management
	MS	Geomatics Engineering
	MS	Mechanical Engineering
	PhD	Criminal Justice Sciences (with UC Davis)

FULLERTON

| 2003 | BS | Computer Engineering |
| | MS | Software Engineering |

HAYWARD

| 2002 | EdD | Urban Educational Leadership (with UC Berkeley, San Francisco State, San José State) |
| 2003 | MSW | Social Work* |

HUMBOLDT

None

LONG BEACH

2002	BA	Asian American Studies
	BA	Environmental Science and Policy
	BA	French Studies
	BA	Italian Studies
	BS	Environmental Science and Policy
	BS	Manufacturing Engineering Technology
	MS	Science Education
	EdD/PhD	Educational Leadership (with UC Riverside and seven CSU campuses)

*Newly proposed for Trustees "planning authorization." Implementation subject to approval by the Chancellor.

LOS ANGELES

2002	BA	Asian and Asian American Studies
	BA	Chinese
	MS	Computer Science
2003	BS	Aviation Administration

MARITIME ACADEMY

| 2002 | BS | **Global Studies and Maritime Affairs*** |

MONTEREY BAY

2002	MS	Communication Science and Technology
2003	BA	Music and Performing Arts
	MS	Earth Systems Science and Policy
2006	MBA	Business Administration

NORTHRIDGE

2002	BS	Information Technology
	MS	Electrical Engineering
	MS	Mechanical Engineering
	MS	Software Engineering
2003	BA	**Public Sector Management***
	BA	Science
	MS	Computer Engineering
	MS	Engineering Management

POMONA

2002	BS	**Computer Engineering***
	BS	**Integrated Earth Studies***
	MA	Psychology
	MS	Accountancy
	MS	Engineering Management
	MS	Mechanical Engineering
2003	MS	Food Industry Management
	MS	Regenerative Studies

SACRAMENTO

| 2002 | PhD | Education (with UC Davis) |
| 2004 | PhD | **Public Policy/Higher Education (with USC)*** |

SAN BERNARDINO

2002	BA	Computer Science
2003	BS	Environmental Health Science
	MA	**Child Development***

SAN BERNARDINO (continued)

2003	MA	English
	MA	Music
	MS	Special Education
2004	BS	**Information Systems***
	MA	Theatre Arts
	MPH	**Public Health***
	MS	Accountancy
2005	MA	**Spanish***
	MS	Kinesiology
2006	BS	Civil Engineering
	BS	Electrical Engineering
	BS	Mechanical Engineering

SAN DIEGO

2002	BA	Jewish Studies (in collaboration with CSU Chico and San Francisco State)
	PhD	**Social Work (with USC)***
2003	AuD	**Audiology (with UC San Diego)***
	PhD	**Earth Sciences (Geophysics) (with UC San Diego)***
	PhD	Evolutionary Biology (with UC Berkeley)
2006	PhD	**Hearing Science (with UC San Diego)***

SAN FRANCISCO

2002	BA	Jewish Studies (in collaboration with CSU Chico and San Diego State)
	BS	Apparel and Interior Design
	BS	Atmospheric and Oceanic Sciences
	EdD	Urban Educational Leadership (with UC Berkeley, CSU Hayward, San José State)

SAN JOSE

2002	EdD	Urban Educational Leadership (with UC Berkeley, CSU Hayward, San Francisco State)
2003	BS	Microelectronics Process Engineering
	EdD	**Educational Leadership (with UC Santa Cruz)***

*Newly proposed for Trustees "planning authorization." Implementation subject to approval by the Chancellor.

SAN LUIS OBISPO

2002	BS	Software Engineering*
	MPP	Public Policy
	MS	Agricultural Business*
	EdD	Educational Leadership
		(with UC Santa Barbara)*
2004	MS	Environmental Design
	MS	Structural Engineering

SAN MARCOS

2003	BA	Kinesiology
	BS	Criminal Justice and Criminology
2006	MS	Chemistry
2007	MPA	Public Administration

SONOMA

None

STANISLAUS

| 2002 | BA | Agricultural Studies |

Appendix C

California Community Colleges Program Review

College	Program Name	Certificate	AA	AS
San Joaquin Delta	Network Software Technician (pending)	x		x
Santa Monica	Computer Animation & Visual Effects (pending)	x	x	
Palomar	Legal Studies		x	
De Anza	Biology			x
Consumnes River	Engineering			x
Lake Tahoe	Mathematics		x	
Solano	International Studies		x	
Mt. San Jacinto	Golf Course/Turf Mgmt.	x		x
Cosumnes River	Chemistry			x
Cosumnes River	Geology			x
Cosumnes River	Physics			x
Cosumnes River	English		x	
San Francisco City	Alcohol & Drug Studies	x		
Mendocino	CIS-Computer Applications-Web Page Design	x		
Cosumnes River	Mathematics			x
Cosumnes River	Biological Sciences			x
Yuba	Business Administration			x
Cosumnes River	Organizational Communication		x	
Cabrillo	Culinary Arts Baking		x	
Mt. San Jacinto	Geographic Information Systems	x		x
Cosumnes River	Geographic Information Systems	x		
American River	Art New Media	x	x	
East LA	Mathematics		x	x
Citrus	Commercial Dance	x		
Ventura	Multimedia (conjoint with Moorpark & Oxnard)	x		x
East LA	Technology, Entertainment, Animation, Multimedia	x	x	
American River	Mathematics			x
Cuyamaca	Exercise Science			x
Saddleback	Oceanography			x
Cypress	Multimedia Module for Photography	x		
Cypress	Color Photography	x		
Long Beach City	Advanced Transportation Technology-Alternate Fuels	x		x
Long Beach City	Advanced Transportation Technology-Electric Vehicles	x		x
Riverside-Moreno Valley	Biotechnology	x		x

College	Program			
Yuba	Diesel Equipment Techician	X		
Cypress	Multimedia Art	X		
Cypress	Vector Illustration	X		X
American River	Funeral Services			X
Saddleback College	Webmaster	X	X	X
Saddleback College	Web Designer	X	X	X
Saddleback College	E-Commerce Specialist	X	X	X
Cerritos	Digital Arts	X		X
Bakersfield	Web Development	X		X
Grossmont	Speech-Language Pathology Assistant			X
Siskiyous	EMT - Paramedic	X		X
Fresno City	CIS - Computer Information Systems			X
Evergreen Valley	University Studies-CSU		X	
Mt. San Antonio	Restaurant/Hospitality Management	X	X	
Evergreen Valley	University Studies: IGETC		X	
Mendocino	Computer Applications-Networking	X		
Grossmont	University Transfer Studies		X	
Cuyamaca	Spanish	X	X	
West Hills	Phyciatric Technician	X	X	
Merced College	Laser Electro-Optical Technician	X	X	
San Diego City	Mecomtronics			X
Cuesta College	Facilities Technology	X	X	
Merced College	Biotechnology	X		X
Merritt College	Dietetic Technology	X		X
San Joaquin Delta	Speech/Language Pathology Asst.	X	X	
Sacramento City	Web Publishing Certificate	X		
Sacramento City	Software Applications Certificate	X		
Sacramento City	Programming Certificate	X		
Sacramento City	PC Support Certificate	X		
Sacramento City	Network Design Certificate	X		
Sacramento City	Network Administration Certificate	X		
Sacramento City	Data Base Certificate	X		
Sacramento City	Information Processing	X	X	
Glendale	Fitness Specialist	X	X	
Sacramento City	History		X	
Sacramento City	Anthropology		X	
West Valley	Apparel Production	X	X	
West Valley	Apparel Design	X	X	
Allan Hancock	Psychology		X	

College	Program			
Mendocino College	Culinary Arts Management	X		
Grossmont	Security Management	X	X	
Merced College	Diagnostic Medical Sonography	X	X	
American River	Geographic Information Systems	X	X	
San Joaquin Delta	Fitness Specialist	X		
College of the Canyons	Medical Assistant	X		
Fresno City College	Webmaster	X	X	
Napa Valley College	Human Services	X	X	
Santa Ana	Speech-Language Pathology Assistant	X	X	
Mt. San Antonio	Computers and Networking Technology	X	X	X
Merritt College	Anthropology		X	
Allan Hancock	Speech Communication		X	
Riverside	Human Services	X	X	
LA Trade Tech	Mortgage Finance	X	X	
Las Positas	Physical Education		X	
American River	CIS Networking Management			X
American River	CIS Database Management			X
American River	CIS PC Support			X
Santa Rosa	Web Site Development	X		
Grossmont	Multimedia	X		
Los Positas	Psychology		X	
American River	Network Certificate	X		
American River	Database	X		
American River	PC Support	X		
Mt. St. Antonio	Design for Interactive Visual Media	X	X	
Santa Monica	Tourism, Hospitality, & Leisure Service	X		
San Diego Mesa	Geographic Information Systems	X		X
Pasadena City	Hospitality Management	X	X	X
DeAnza	Network Design & Administration	X	X	
Southwestern	Paraprofessional Family Support Services	X		
Pasadena City	Library Technology	X		
College of the Canyons	Athletic Training			X
Cuesta College	Paralegal Studies		X	
Chaffey	Multimedia	X	X	
Modesto Jr.	Athletic Training			X
San Diego	Human Services	X	X	

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